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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP25

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP20

Matrix (soil/water): WATER

Lab Sample ID: MCJP25

Level (low/med): LOW

Date Received: 12/06/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	Q	M
17429-90-5	Aluminum	261		P
17440-36-0	Antimony	11.0	U	P
17440-38-2	Arsenic	2.0	U	F
17440-39-3	Barium	57.2	B	P
17440-41-7	Beryllium	1.0	U	P
17440-43-9	Cadmium	2.0	U	N P
17440-70-2	Calcium	37500		P
17440-47-3	Chromium	4.0	U	P
17440-48-4	Cobalt	4.0	U	P
17440-50-8	Copper	15.4	B	P
17439-89-6	Iron	844		P
17439-92-1	Lead	1.7	B	F
17439-95-4	Magnesium	13400		P
17439-96-5	Manganese	396		P
17439-97-6	Mercury	0.20	U	CV
17440-02-0	Nickel	5.0	U	P
17440-09-7	Potassium	2830	B	P
17782-49-2	Selenium	2.0	U	F
17440-22-4	Silver	3.0	U	P
17440-23-5	Sodium	15300		P
17440-28-0	Thallium	1.0	U	F
17440-62-2	Vanadium	5.8	B	P
17440-66-6	Zinc	150		P
	Cyanide	2.0	U	AS

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP26

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP20

Matrix (soil/water): WATER

Lab Sample ID: MCJP26

Level (low/med): LOW

Date Received: 12/06/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	Q	M
7429-90-5	Aluminum	174	B	P
7440-36-0	Antimony	11.0	U	P
7440-38-2	Arsenic	2.0	U	F
7440-39-3	Barium	39.8	B	P
7440-41-7	Beryllium	1.0	U	P
7440-43-9	Cadmium	2.0	U	N
7440-70-2	Calcium	26700		P
7440-47-3	Chromium	4.0	U	P
7440-48-4	Cobalt	4.0	U	P
7440-50-8	Copper	7.4	B	P
7439-89-6	Iron	330		P
7439-92-1	Lead	1.7	B	F
7439-95-4	Magnesium	9290		P
7439-96-5	Manganese	45.7		P
7439-97-6	Mercury	0.20	U	CV
7440-02-0	Nickel	5.0	U	P
7440-09-7	Potassium	2590	B	P
7782-49-2	Selenium	2.0	U	F
7440-22-4	Silver	3.0	U	P
7440-23-5	Sodium	17700		P
7440-28-0	Thallium	1.0	U	F
7440-62-2	Vanadium	4.0	U	P
7440-66-6	Zinc	33.2		P
	Cyanide	2.0	U	AS

Color Before: COLORLESS

Clarity Before: CLOUDY

Texture:

Color After: COLORLESS

Clarity After: CLOUDY

Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP27

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP20

Matrix (soil/water): WATER

Lab Sample ID: MCJP27

Level (low/med): LOW

Date Received: 12/06/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	422			P
7440-36-0	Antimony	11.0	U		P
7440-38-2	Arsenic	2.0	B		F
7440-39-3	Barium	37.8	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	2.0	U	N	P
7440-70-2	Calcium	23200			P
7440-47-3	Chromium	4.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	51.9			P
7439-89-6	Iron	579			P
7439-92-1	Lead	5.4			F
7439-95-4	Magnesium	8200			P
7439-96-5	Manganese	36.2			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	5.0	U		P
7440-09-7	Potassium	2380	B		P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	3.0	U		P
7440-23-5	Sodium	17800			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	4.0	U		P
7440-66-6	Zinc	59.5			P
	Cyanide	2.0	U		AS

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

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U.S. EPA - CLP

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EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

MCJP28

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP20

Matrix (soil/water): WATER

Lab Sample ID: MCJP28

Level (low/med): LOW

Date Received: 12/06/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	Q	M
17429-90-5	Aluminum	100		P
17440-36-0	Antimony	11.0		P
17440-38-2	Arsenic	2.0		F
17440-39-3	Barium	35.0		P
17440-41-7	Beryllium	1.0		P
17440-43-9	Cadmium	2.0	N	P
17440-70-2	Calcium	2460		P
17440-47-3	Chromium	4.0		P
17440-48-4	Cobalt	4.0		P
17440-50-8	Copper	6.4		P
17439-89-6	Iron	162		P
17439-92-1	Lead	1.1		F
17439-95-4	Magnesium	8260		P
17439-96-5	Manganese	8.2		P
17439-97-6	Mercury	0.20		CV
17440-02-0	Nickel	5.0		P
17440-09-7	Potassium	2130		P
17782-49-2	Selenium	2.0		F
17440-22-4	Silver	3.0		P
17440-23-5	Sodium	18000		P
17440-28-0	Thallium	1.0		F
17440-62-2	Vanadium	4.0		P
17440-66-6	Zinc	15.8		P
	Cyanide	2.0		AS

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

000012

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP29

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP20

Matrix (soil/water): WATER

Lab Sample ID: MCJP29

Level (low/med): LOW

Date Received: 12/06/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	CI	Q	IM
7429-90-5	Aluminum	525			P
7440-36-0	Antimony	11.0	UI		P
7440-38-2	Arsenic	2.0	UI		F
7440-39-3	Barium	58.6	BI		P
7440-41-7	Beryllium	1.0	UI		P
7440-43-9	Cadmium	2.0	UI	N	P
7440-70-2	Calcium	35000			P
7440-47-3	Chromium	4.0	UI		P
7440-48-4	Cobalt	4.0	UI		P
7440-50-8	Copper	42.7			P
7439-89-6	Iron	1700			P
7439-92-1	Lead	5.8			F
7439-95-4	Magnesium	12200			P
7439-96-5	Manganese	590			P
7439-97-6	Mercury	0.20	UI		CV
7440-02-0	Nickel	5.0	UI		P
7440-09-7	Potassium	2830	BI		P
7782-49-2	Selenium	2.0	UI		F
7440-22-4	Silver	3.0	UI		P
7440-23-5	Sodium	13700			P
7440-28-0	Thallium	1.0	UI		F
7440-62-2	Vanadium	10.4	BI		P
7440-66-6	Zinc	171			P
	Cyanide	2.0	UI		AS

Color Before: COLORLESS

Clarity Before: CLOUDY

Texture: _____

Color After: COLORLESS

Clarity After: CLOUDY

Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP70

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP20

Matrix (soil/water): WATER

Lab Sample ID: MCJP70

Level (low/med): LOW

Date Received: 12/06/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	Q	M
17429-90-5	Aluminum	22.0		P
17440-36-0	Antimony	11.0		P
17440-38-2	Arsenic	2.0		F
17440-39-3	Barium	1.0		P
17440-41-7	Beryllium	1.0		P
17440-43-9	Cadmium	2.0	N	P
17440-70-2	Calcium	66.4		P
17440-47-3	Chromium	4.0		P
17440-48-4	Cobalt	4.0		P
17440-50-8	Copper	3.0		P
17439-89-6	Iron	13.0		P
17439-92-1	Lead	1.0		F
17439-95-4	Magnesium	19.0		P
17439-96-5	Manganese	1.0		P
17439-97-6	Mercury	0.20		CV
17440-02-0	Nickel	5.0		P
17440-09-7	Potassium	512		P
17782-49-2	Selenium	2.0		F
17440-22-4	Silver	3.0		P
17440-23-5	Sodium	23.5		P
17440-28-0	Thallium	1.0		F
17440-62-2	Vanadium	4.0		P
17440-66-6	Zinc	5.9		P
	Cyanide	2.0		AS

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

INORGANIC ANALYSES DATA SHEET

MCJP30

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP30

Level (low/med): LOW Date Received: 12/06/91

% Solids: 61.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	CI	Q	IM
17429-90-5	Aluminum	8560			IP
17440-36-0	Antimony	9.7	B	EN	IP
17440-38-2	Arsenic	3.2		N	IF
17440-39-3	Barium	84.1			IP
17440-41-7	Beryllium	0.63	B	*	IP
17440-43-9	Cadmium	0.62	U	E*	IP
17440-70-2	Calcium	1380	B	E*	IP
17440-47-3	Chromium	12.7		E*	IP
17440-48-4	Cobalt	6.3	B		IP
17440-50-8	Copper	14.6			IP
17439-89-6	Iron	11300		E	IP
17439-92-1	Lead	40.4		S	IF
17439-95-4	Magnesium	3050		E	IP
17439-96-5	Manganese	929			IP
17439-97-6	Mercury	0.20		*	CV
17440-02-0	Nickel	11.2	B	EN*	IP
17440-09-7	Potassium	420	B	E	IP
17782-49-2	Selenium	0.65	U		IF
17440-22-4	Silver	0.62	U	EN*	IP
17440-23-5	Sodium	111	B		IP
17440-28-0	Thallium	0.32	B		IF
17440-62-2	Vanadium	21.2			IP
17440-66-6	Zinc	48.6			IP
	Cyanide	0.33	U	*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: WATER, STONES, AND ROOTS

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP38

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP38

Level (low/med): LOW Date Received: 12/06/91

% Solids: 72.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	Q	M
17429-90-5	Aluminum	24300		P
17440-36-0	Antimony	46.8	EN	P
17440-38-2	Arsenic	9.4	N	F
17440-39-3	Barium	105		P
17440-41-7	Beryllium	1.9	*	P
17440-43-9	Cadmium	0.54	U	E*
17440-70-2	Calcium	3440		E*
17440-47-3	Chromium	51.7		E*
17440-48-4	Cobalt	21.7		P
17440-50-8	Copper	173		P
17439-89-6	Iron	37300		E
17439-92-1	Lead	46.6		F
17439-95-4	Magnesium	17800		E
17439-96-5	Manganese	1140		P
17439-97-6	Mercury	0.16		*
17440-02-0	Nickel	41.3		EN*
17440-09-7	Potassium	1510		E
17782-49-2	Selenium	0.54	U	
17440-22-4	Silver	0.84	B	EN*
17440-23-5	Sodium	177	B	
17440-28-0	Thallium	0.27	B	
17440-62-2	Vanadium	77.2		P
17440-66-6	Zinc	167		P
	Cyanide	0.28	U	*

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: STONES

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJPS1

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJPS0

Matrix (soil/water): SOIL Lab Sample ID: MCJPS1

Level (low/med): LOW Date Received: 12/06/91

% Solids: 67.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	Q	M
17429-90-5	Aluminum	14300		P
17440-36-0	Antimony	53.7	EN	P
17440-38-2	Arsenic	7.5	N	F
17440-39-3	Barium	150		P
17440-41-7	Beryllium	1.3	*	P
17440-43-9	Cadmium	0.57	E*	P
17440-70-2	Calcium	1400	E*	P
17440-47-3	Chromium	30.9	E*	P
17440-48-4	Cobalt	20.3		P
17440-50-8	Copper	4530		P
17439-89-6	Iron	47500	E	P
17439-92-1	Lead	201	*	P
17439-95-4	Magnesium	8560	E	P
17439-96-5	Manganese	3140		P
17439-97-6	Mercury	0.21	*	CV
17440-02-0	Nickel	95.7	EN*	P
17440-09-7	Potassium	444	E	P
17782-49-2	Selenium	0.58	W	F
17440-22-4	Silver	1.7	EN*	P
17440-23-5	Sodium	97.5		P
17440-28-0	Thallium	0.29		F
17440-62-2	Vanadium	51.8		P
17440-66-6	Zinc	1300		P
	Cyanide	0.37	*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: WATER, STONES, AND GRASS

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP52

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP52

Level (low/med): LOW Date Received: 12/06/91

% Solids: 68.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
17429-90-5	Aluminum	13300			P
17440-36-0	Antimony	31.9		EN	P
17440-38-2	Arsenic	5.7		N	F
17440-39-3	Barium	88.3			P
17440-41-7	Beryllium	1.2	B	*	P
17440-43-9	Cadmium	0.58	U	E*	P
17440-70-2	Calcium	1500		E*	P
17440-47-3	Chromium	28.5		E*	P
17440-48-4	Cobalt	17.7			P
17440-50-8	Copper	305			P
17439-89-6	Iron	27900		E	P
17439-92-1	Lead	51.7			F
17439-95-4	Magnesium	9160		E	P
17439-96-5	Manganese	1610			P
17439-97-6	Mercury	0.28		*	CV
17440-02-0	Nickel	35.1		EN*	P
17440-09-7	Potassium	651	B	E	P
17782-49-2	Selenium	0.57	U		F
17440-22-4	Silver	0.58	U	EN*	P
17440-23-5	Sodium	102	B		P
17440-28-0	Thallium	0.29	U		F
17440-62-2	Vanadium	91.5			P
17440-66-6	Zinc	425			P
	Cyanide	0.37	B	*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: WATER, STONES

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP53

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP53

Level (low/med): LOW Date Received: 12/06/91

% Solids: 71.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	Q	M
7429-90-5	Aluminum	11200		P
7440-36-0	Antimony	22.9	EN	P
7440-38-2	Arsenic	9.8	N	F
7440-39-3	Barium	52.4		P
7440-41-7	Beryllium	0.81	*	P
7440-43-9	Cadmium	0.53	U	E*
7440-70-2	Calcium	1150		P
7440-47-3	Chromium	19.8		E*
7440-48-4	Cobalt	11.7		P
7440-50-8	Copper	23.8		P
7439-89-6	Iron	19100		E
7439-92-1	Lead	35.4		F
7439-95-4	Magnesium	6790		E
7439-96-5	Manganese	573		P
7439-97-6	Mercury	0.15	*	CV
7440-02-0	Nickel	21.1	EN*	P
7440-09-7	Potassium	845		B
7782-49-2	Selenium	0.53	U	F
7440-22-4	Silver	0.53	U	EN*
7440-23-5	Sodium	107		B
7440-28-0	Thallium	0.27		B
7440-62-2	Vanadium	35.6		P
7440-66-6	Zinc	86.0		P
	Cyanide	0.28		B
			*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: WATER, STONES

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1

EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

MCJP61

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP61

Level (low/med): LOW Date Received: 12/06/91

% Solids: 60.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	CI	Q	IM
7429-90-5	Aluminum	16600			IP
7440-36-0	Antimony	22.4		EN	IP
7440-38-2	Arsenic	8.5		N	IF
7440-39-3	Barium	103			IP
7440-41-7	Beryllium	1.0	B	*	IP
7440-43-9	Cadmium	0.63	U	E*	IP
7440-70-2	Calcium	2720		E*	IP
7440-47-3	Chromium	31.1		E*	IP
7440-48-4	Cobalt	11.2	B		IP
7440-50-8	Copper	38.9			IP
7439-89-6	Iron	20400		E	IP
7439-92-1	Lead	70.4			IF
7439-95-4	Magnesium	7000		E	IP
7439-96-5	Manganese	583			IP
7439-97-6	Mercury	0.26		*	ICV
7440-02-0	Nickel	23.3		EN*	IP
7440-09-7	Potassium	1550	B	E	IP
7782-49-2	Selenium	0.63	U		IF
7440-22-4	Silver	0.63	U	EN*	IP
7440-23-5	Sodium	193	B		IP
7440-28-0	Thallium	0.31	B		IF
7440-62-2	Vanadium	43.8			IP
7440-66-6	Zinc	130			IP
	Cyanide	0.41	B	*	IAS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: ROOTS, LEAVES, WATER, AND STONES

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP62

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP62

Level (low/med): LOW Date Received: 12/06/91

% Solids: 85.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11200			P
7440-36-0	Antimony	30.3		EN	P
7440-38-2	Arsenic	4.8		SN	F
7440-39-3	Barium	103			P
7440-41-7	Beryllium	1.0	B	*	P
7440-43-9	Cadmium	0.45	U	E*	P
7440-70-2	Calcium	17800		E*	P
7440-47-3	Chromium	37.8		E*	P
7440-48-4	Cobalt	11.9			P
7440-50-8	Copper	52.2			P
7439-89-6	Iron	23900		E	P
7439-92-1	Lead	146		*	P
7439-95-4	Magnesium	11000		E	P
7439-96-5	Manganese	679			P
7439-97-6	Mercury	0.19		*	CV
7440-02-0	Nickel	28.7		EN*	P
7440-09-7	Potassium	1820		E	P
7782-49-2	Selenium	0.45	U		F
7440-22-4	Silver	0.45	U	EN*	P
7440-23-5	Sodium	277	B		P
7440-28-0	Thallium	0.23	B		F
7440-62-2	Vanadium	51.0			P
7440-66-6	Zinc	201			P
	Cyanide	0.23	U	*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: STONES AND ROOTS

INORGANIC ANALYSES DATA SHEET

MCJP64

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP64

Level (low/med): LOW Date Received: 12/06/91

% Solids: 77.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	CI	Q	IM
7429-90-5	Aluminum	15400			P
7440-36-0	Antimony	165		EN	P
7440-38-2	Arsenic	7.6		N	F
7440-39-3	Barium	131			P
7440-41-7	Beryllium	1.2	B	*	P
7440-43-9	Cadmium	28.4		E*	P
7440-70-2	Calcium	10800		E*	P
7440-47-3	Chromium	253		E*	P
7440-48-4	Cobalt	18.1			P
7440-50-8	Copper	130000			P
7439-89-6	Iron	13500		E	P
7439-92-1	Lead	6560		*	P
7439-95-4	Magnesium	10800		E	P
7439-96-5	Manganese	373			P
7439-97-6	Mercury	5.4		*	CV
7440-02-0	Nickel	550		EN*	P
7440-09-7	Potassium	1220	B	E	P
7782-49-2	Selenium	0.51	B	W	F
7440-22-4	Silver	41.8		EN*	P
7440-23-5	Sodium	229	B		P
7440-28-0	Thallium	0.51	B		F
7440-62-2	Vanadium	36.5			P
7440-66-6	Zinc	35400			P
	Cyanide	0.26	U	*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: METAL, STONES, AND ROOTS

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.:

MCJP65

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP65

Level (low/med): LOW Date Received: 12/06/91

% Solids: 76.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	CI	Q	IM
7429-90-5	Aluminum	20600			P
7440-36-0	Antimony	26.8		EN	P
7440-38-2	Arsenic	3.6		N	F
7440-39-3	Barium	76.8			P
7440-41-7	Beryllium	1.1	B	*	P
7440-43-9	Cadmium	0.52	U	E*	P
7440-70-2	Calcium	744	B	E*	P
7440-47-3	Chromium	25.5		E*	P
7440-48-4	Cobalt	14.6			P
7440-50-8	Copper	11.4			P
7439-89-6	Iron	24100		E	P
7439-92-1	Lead	29.6			F
7439-95-4	Magnesium	7580		E	P
7439-96-5	Manganese	881			P
7439-97-6	Mercury	0.12	U	*	CV
7440-02-0	Nickel	26.8		EN*	P
7440-09-7	Potassium	754	B	E	P
7782-49-2	Selenium	0.51	U		F
7440-22-4	Silver	0.52	U	EN*	P
7440-23-5	Sodium	75.6	B		P
7440-28-0	Thallium	0.51	B		F
7440-62-2	Vanadium	40.5			P
7440-66-6	Zinc	108			P
	Cyanide	0.26	U	*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: STONES AND ROOTS

INORGANIC ANALYSES DATA SHEET

MCJP66

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP66

Level (low/med): LOW Date Received: 12/06/91

% Solids: 64.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	CI	Q	IM
7429-90-5	Aluminum	11000			P
7440-36-0	Antimony	34.2		EN	P
7440-38-2	Arsenic	1.5	B	N	F
7440-39-3	Barium	126			P
7440-41-7	Beryllium	1.3	B	*	P
7440-43-9	Cadmium	0.59	U	E*	P
7440-70-2	Calcium	1390	B	E*	P
7440-47-3	Chromium	22.9		E*	P
7440-48-4	Cobalt	22.9			P
7440-50-8	Copper	611			P
7439-89-6	Iron	31000		E	P
7439-92-1	Lead	118		*	P
7439-95-4	Magnesium	3920		E	P
7439-96-5	Manganese	3010			P
7439-97-6	Mercury	0.22		*	CV
7440-02-0	Nickel	56.0		EN*	P
7440-09-7	Potassium	383	B	E	P
7782-49-2	Selenium	0.60	U		F
7440-22-4	Silver	0.78	B	EN*	P
7440-23-5	Sodium	99.1	B		P
7440-28-0	Thallium	0.30	B		F
7440-62-2	Vanadium	51.8			P
7440-66-6	Zinc	660			P
	Cyanide	0.31	U	*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: WATER, STONES, AND ROOTS

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP67

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP67

Level (low/med): LOW Date Received: 12/06/91

% Solids: 64.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	CI	Q	M
17429-90-5	Aluminum	10500			P
17440-36-0	Antimony	159		EN	P
17440-38-2	Arsenic	8.9		N	F
17440-39-3	Barium	311			P
17440-41-7	Beryllium	3.1		*	P
17440-43-9	Cadmium	31.9		E*	P
17440-70-2	Calcium	8110		E*	P
17440-47-3	Chromium	846		E*	P
17440-48-4	Cobalt	40.8			P
17440-50-8	Copper	67100			P
17439-89-6	Iron	43000		E	P
17439-92-1	Lead	3180		*	P
17439-95-4	Magnesium	3780		E	P
17439-96-5	Manganese	560			P
17439-97-6	Mercury	13.9		*	CV
17440-02-0	Nickel	199		EN*	P
17440-09-7	Potassium	516	B	E	P
17782-49-2	Selenium	0.61	B	W	F
17440-22-4	Silver	20.5		EN*	P
17440-23-5	Sodium	267	B		P
17440-28-0	Thallium	1.2	B		F
17440-62-2	Vanadium	38.5			P
17440-66-6	Zinc	44600			P
	Cyanide	4.9		*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: GREEN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: WOOD, ROOTS, STONES, AND GLASS

000015

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJF68

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJF30

Matrix (soil/water): SOIL Lab Sample ID: MCJF68

Level (low/med): LOW Date Received: 12/06/91

% Solids: 70.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	Q	M
7429-90-5	Aluminum	10800		P
7440-36-0	Antimony	50.7	EN	P
7440-38-2	Arsenic	4.4	N	F
7440-39-3	Barium	77.8		P
7440-41-7	Beryllium	0.62	*	P
7440-43-9	Cadmium	3.5	E*	P
7440-70-2	Calcium	5260	E*	P
7440-47-3	Chromium	177	E*	P
7440-48-4	Cobalt	7.6		P
7440-50-8	Copper	28300		P
7439-89-6	Iron	17100	E	P
7439-92-1	Lead	330	*	P
7439-95-4	Magnesium	2810	E	P
7439-96-5	Manganese	223		P
7439-97-6	Mercury	60.5	*	CV
7440-02-0	Nickel	33.0	EN*	P
7440-09-7	Potassium	965	E	P
7782-49-2	Selenium	0.55	U	F
7440-22-4	Silver	4.8	EN*	P
7440-23-5	Sodium	161		P
7440-28-0	Thallium	0.27		F
7440-62-2	Vanadium	55.6		P
7440-66-6	Zinc	10500		P
	Cyanide	1.1	*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: STONES AND ROOTS

000016

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MCJP69

Lab Name: ITAS_PITTSBURGH Contract: 68-D9-0087

Lab Code: ITPA Case No.: 17514 SAS No.: SDG No.: MCJP30

Matrix (soil/water): SOIL Lab Sample ID: MCJP69

Level (low/med): LOW Date Received: 12/06/91

% Solids: 71.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	Q	M
7429-90-5	Aluminum	13200		P
7440-36-0	Antimony	239	EN	P
7440-38-2	Arsenic	13.2	SN	F
7440-39-3	Barium	284		P
7440-41-7	Beryllium	4.3	*	P
7440-43-9	Cadmium	45.4	E*	P
7440-70-2	Calcium	9080	E*	P
7440-47-3	Chromium	1560	E*	P
7440-48-4	Cobalt	28.3		P
7440-50-8	Copper	122000		P
7439-89-6	Iron	58600	E	P
7439-92-1	Lead	6240	*	P
7439-95-4	Magnesium	7210	E	P
7439-96-5	Manganese	544		P
7439-97-6	Mercury	21.2	*	CV
7440-02-0	Nickel	776	EN*	P
7440-09-7	Potassium	935	E	P
7782-49-2	Selenium	1.7	S	F
7440-22-4	Silver	30.1	EN*	P
7440-23-5	Sodium	361	B	P
7440-28-0	Thallium	0.28	B	F
7440-62-2	Vanadium	507		P
7440-66-6	Zinc	66900		P
	Cyanide	10.5	*	AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: GREEN Clarity After: Artifacts: YES

Comments:

ARTIFACTS: METAL, STONES, AND ROOTS

ORIGINAL
(Red)

APPENDIX E

AMBLER LABORATORIES

11 S. RIDGE AVE.

AMBLER, PA 19002-4799

CHEMICAL
BACTERIOLOGICAL
EPA-DER CERTIFIED

646-1057 699-5757

RESEARCH
CONSULTING
LAB #46-029

Jan. 10, 1989

Borough of Sellersville Water Dept.
Sellersville Borough Office
140 E. Church St.
Sellersville, Pa. 18960

Attn: Mr. Craig Wilhelm

Samples #P89-370-21

Gentlemen:

Following is the report on analysis of samples collected
Dec. 19, 1989 identified as Well #5.

All the EPA-DER specified bolatile organic compounds
listed below were analysed for in the above identified
sample. Where a value is given it is in parts per billion
(PPB) of the compound found. "ND" indicated NONE DETECTED.

Vinyl Chloride.	ND
1,1 Dichloroethene.	ND
1,2 Dichloroethane.	ND
1,1,1 Trichloroethane	ND
Carbon Tetrachloride.	ND
Trichloroethene(TCE).	22.6 ppb
Tetrachloroethene(PCE). . . .	ND
Benzene	5.3 ppb
1,4 Dichlorobenzene	ND

Thanking you for the opportunity to be of service, we
remain

Very truly yours,
AMBLER LABORATORIES


Frank R. Romano, MSc.
BioChemist-in-Charge

FRR/jch

4011-17-50
17-50

BOROUGH OF SELLERSVILLE

WATER DEPARTMENT

SELLERSVILLE, PA. April 10, 1990

MEMO

TO: Bucks County Department Of Health
ATTN: Mr. Everett Hogg

FROM: Craig A. Wilhelm
Water Supply Technician
Borough Of Sellersville

SUBJECT: TCE Test-Well #5

Attached please find a copy of test results for TCE that were taken on March 28.

The first sample was taken from a pipe that runs out of an old dump that is located off of Twelve Street that is located in the rear of well #5. You can see by the test results the high amount of TCE and 111-TRI that was in the water that runs out of this pipe.

The second sample was taken out of the raw water at well #5 after running the well to waste for approximately two hours.

I have also forwarded a copy of the test results to the borough engineers, Cowan Associates in Quakertown.

RECEIVED

APR 12 1990

BUCKS CO. DEPT. OF HEALTH



1205 INDUSTRIAL HIGHWAY • P.O. BOX 514
SOUTHAMPTON, PA. 18966 • 215/355-3900

SELIERSVILLE ROBO AUTHORITY
140 EAST CHURCH STREET
SELIERSVILLE, PA
18960

SAMPLE DATE 03/28/90
SAMPLE TIME 11:50AM
SAMPLE TEMP 51A F
SAMPLED BY CJ
COLLECTED BY VH
ANALYSIS DATE 03/29/90
P.O. NUMBER
PWS-ID NUMBER 1090062

11-14-89
22:29
LE/CONTAINER

TEST NUMBER	TEST NAME	UNIT MEASURE
W0601-UCL	111-TRI	UG/L
W0602-UCL	TCE	UG/L
W0603-UCL	PCE	UG/L

5 0700 HRS

54.

30.

<0.5

188544 QC SUPPLIED CONTAINER

5 0815 HRS

<0.5

<0.5

<0.5

188545 QC SUPPLIED CONTAINER

Sample taken out of pipe off of 12th Street
that runs through old dump and into creek
that runs south of well #5.
Sample from well #5

* 111-TRI = 1,1,1-TRICHLOROETHANE
* TCE = TRICHLOROETHYLENE
* PCE = TETRACHLOROETHYLENE

LET COMMENT NOTE: EACH SAMPLE ABOVE IS GIVEN A UNIQUE ID# (PRINTED JUST BELOW THE SAMPLE)

SAMPLED BY CUSTOMER

44 ALL TESTING IS CONDUCTED IN ACCORDANCE WITH E.P.A. METHODOLOGY.
45 ALL TESTING IS CONDUCTED IN ACCORDANCE WITH E.P.A. METHODOLOGY.

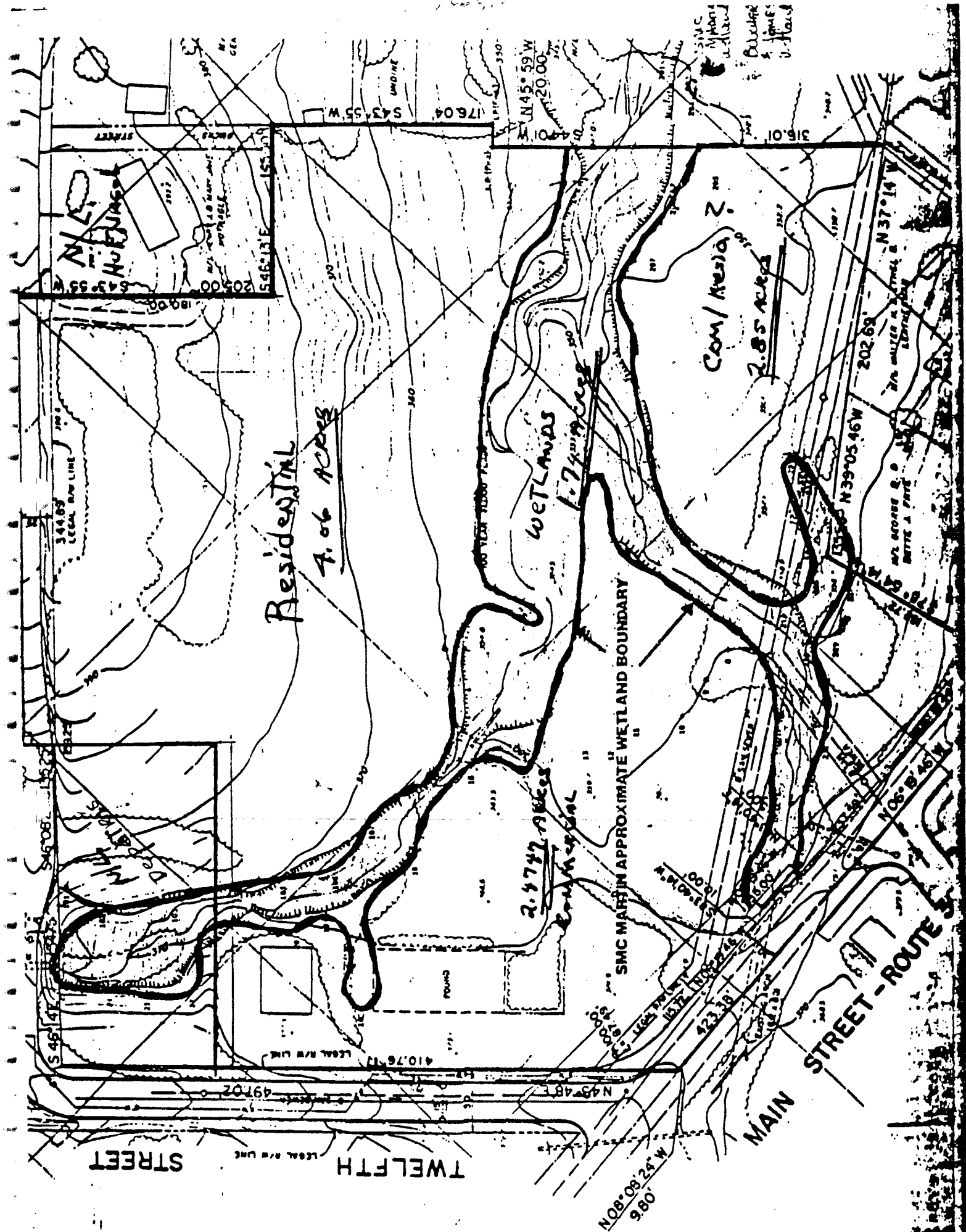
RECEIVED

APR 12 1990
BUCK'S CO. DEPT. OF HEALTH

Allen D. Schopbach
Allen D. Schopbach, President

ORIGINAL
(Red)

APPENDIX F



3263-0506-01

ORIGINAL
(Red)

R-585-2-1-3

PRELIMINARY ASSESSMENT OF
INACTIVE LANDFILL
PREPARED UNDER

TDD NO. F3-9011-19
EPA NO. PA-2803
CONTRACT NO. 68-01-7346

FOR THE
HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

APRIL 5, 1991

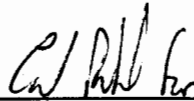
NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY



RONALD DABRAVALSKIE
PROJECT MANAGER

REVIEWED BY



PAUL PERSING
SECTION SUPERVISOR

APPROVED BY



GARTH GLENN
REGIONAL MANAGER, FIT 3

ORIGINAL
(Red)

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ORIGINAL
FILED

SECTION 1

APPROVED
DATE

1.0 INTRODUCTION

1.1 Authorization

NUS Corporation performed this work under Environmental Protection Agency Contract No. 68-01-7346. This specific report was prepared in accordance with Technical Directive Document No. F3-9011-19 for the Inactive Landfill site, located in Sellersville, Bucks County, Pennsylvania.

1.2 Scope of Work

NUS FIT 3 was tasked to conduct a preliminary assessment of the subject site.

1.3 Summary

The Inactive Landfill site is located in West Rockhill Township, Bucks County, Pennsylvania. It is east of Old Route 309 on the commercial and residential property of Park Ten, Incorporated (PTI). The area of concern is an old landfill, approximately 60 by 80 feet in size, that is bordered by a stream and wooded areas. The environmental concerns at the site are primarily surface water, groundwater, and soil contamination.

The property was purchased by PTI in 1968 in five different parcels. Lot no. 8, which is at the northern edge of the property bordering Twelfth Street, was purchased from Ulysees Nace in 1968. The 2.71-acre land parcel was leased by Mr. Nace in the early 1940s to Lamar Barndt. The parcel was leased by PTI to Timothy Auckland. PTI purchased lot no. 7, a very small parcel located at the northwestern portion of the property, in 1968 from the borough of Sellersville. PTI purchased lot no. 291, a very thin land parcel along Old Route 309 on the western edge of the property, in 1968 from the county of Bucks. PTI purchased lot no. 292, at the western edge bordering lot nos. 8, 10, and 291, from John Morrow in 1968. PTI purchased lot no. 10, a 7.03-acre land parcel at the southern end of the property, from Sam Doughty in 1968.

Allegedly, the site was used by Lamar Barndt, a local hauler, in the 1940s as a disposal area for waste from U.S. Gauge. U.S. Gauge, which allegedly manufactured aircraft dials with a radium-based paint, is located in southern Sellersville, Pennsylvania. Richard Coll, the borough manager, said he had found old aircraft dials on the site. A plastic bag containing a jar of radium paint, pieces of a broken jar, and several cubic feet of contaminated soil were removed from the site by Radiation Service Organization (RSO), of Laurel, Maryland. RSO was hired before the sale of the property to PTI to conduct an environmental assessment of the property. The exact date of the removal of the material is not known.

The Inactive Landfill was identified by the Bucks County Health Department. The site was referred to the Pennsylvania Department of Environmental Resources (PA DER) for further investigation.

Water samples were taken on March 28, 1990 by the Sellersville Borough. The first sample was taken from a pipe that runs out of an old landfill that is located on the northern portion of the property. The sample results showed a high amount of trichloroethylene (TCE) and 1,1,1-trichloroethane (1,1,1-TCEA) in the water that ran out of this pipe. The second sample was taken out of the raw water at production well no. 5, which is south of the site, after the well was purged for approximately two hours. The results showed less than 0.5 ug/l of TCE and 1,1,1-TCEA.

The water supply for the residents of the study area is served by public water supply companies and private water supply wells. The public supplies utilize surface water and groundwater as their sources. The Sellersville Borough Municipal Water Works (SBMWW) serves a population of about 5,000 people in Sellersville Township and a portion of West Rockhill Township with surface water and groundwater. The surface intake is located on the Smoketown Creek catch basin, about 1.8 miles northwest and upstream of the site. SBMWW utilizes two wells located on Maple Avenue (well no. 4) and Ninth Street (well no. 5). Well no. 4 is located about 0.5 mile south of the site. The total population dependent on groundwater for its potable water supply in a 1-mile radius is approximately 5,000 persons. The total population dependent on groundwater for its potable water supply in a 3-mile radius is approximately 33,810 persons.

Allegedly, the site was used by Lamar Barndt, a local hauler, in the 1940s as a disposal area for waste from U.S. Gauge. U.S. Gauge, which allegedly manufactured aircraft dials with a radium-based paint, is located in southern Sellersville, Pennsylvania. Richard Coll, the borough manager, said he had found old aircraft dials on the site. A plastic bag containing a jar of radium paint, pieces of a broken jar, and several cubic feet of contaminated soil were removed from the site by Radiation Service Organization (RSO), of Laurel, Maryland. RSO was hired before the sale of the property to PTI to conduct an environmental assessment of the property. The exact date of the removal of the material is not known.

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ORIGINAL
(Red)

SECTION 2

ORIGINAL
10-19

2.0 THE SITE

2.1 Location

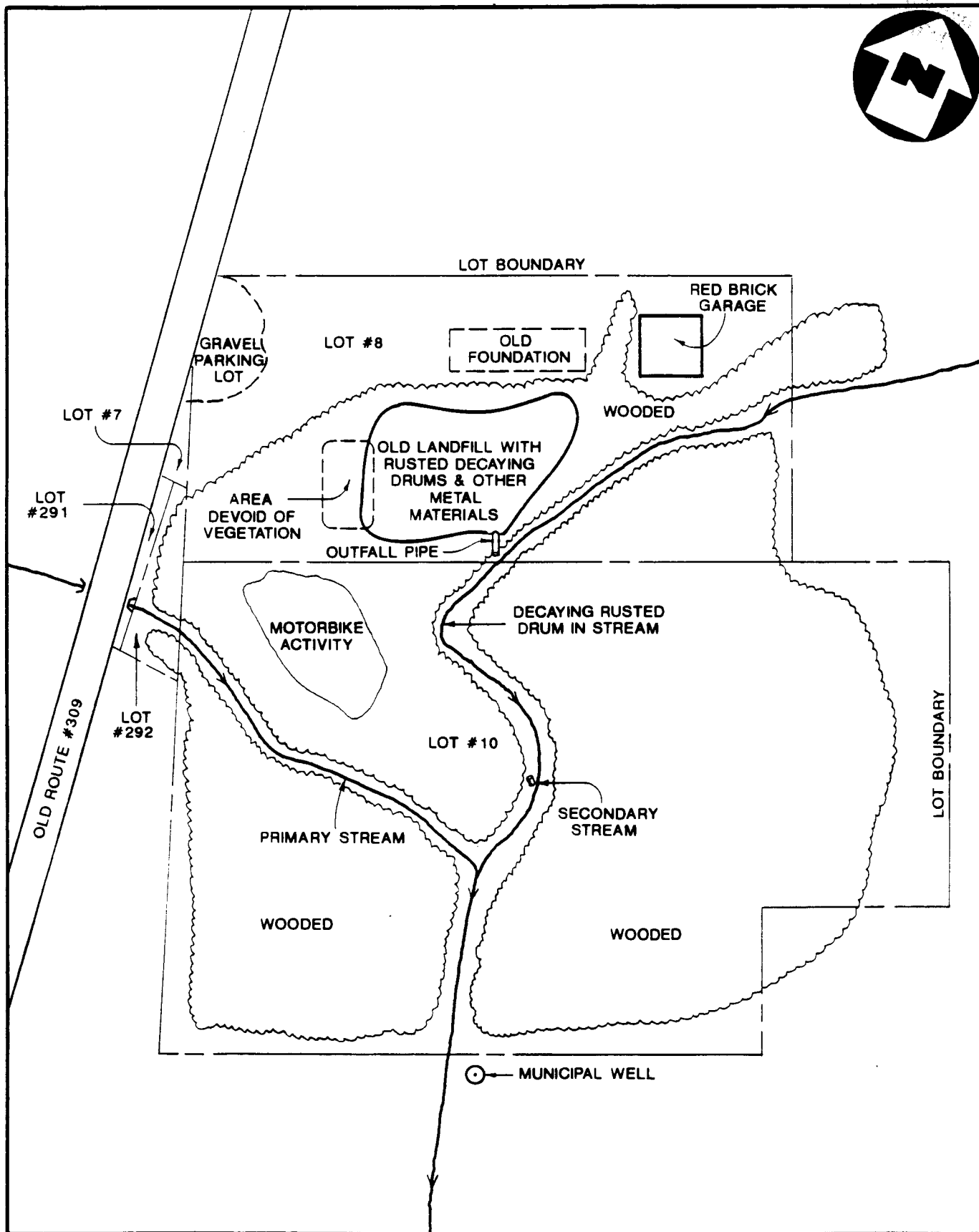
The site is located directly southeast of the corner of Twelfth Street and Old Route 309 in Sellersville, West Rockhill Township, Bucks County, Pennsylvania (see figure 2.1, page 2-2). The site can be found at the intersection of 40° 18' 48" north latitude and 75° 15' 15" west longitude on the Telford, Pennsylvania topographic quadrangle map. As measured from the southwestern corner of the Telford, Pennsylvania topographic map, the site is 21-1/4 inches north and 3-3/4 inches east.¹

2.2 Site Layout

The Inactive Landfill site, which is approximately 11 acres in size, consists of 5 parcels of land (see figure 2.2, page 2-3). The first parcel (lot no. 8) is rectangular in shape; it runs along Twelfth Street on the northern edge of the site. The second parcel, lot no. 10, is south and downgradient of lot no. 8; a small extension of this square parcel runs to the west, bordering Franklin Avenue. Parcel no. 3 (lot no. 291) is a very small strip of land bordering Old Route 309 on the western side of the site. Parcel no. 4 (lot no. 292) is triangular in shape and borders lot no. 291 to the west. Parcel no. 5, lot no. 7, is also triangular in shape and is located north of lot nos. 291 and 292; it also borders Old Route 309 on the northwestern side of the site. All parcels are now combined to form the 11-acre rectangular lot. There is unrestricted access to the entire site.^{2,3,4,5}

Two small, unnamed tributaries flow through the site. One flows from the northeastern corner of the site southwestwardly through the site until it merges with an unnamed tributary that flows from the west in a southeastward direction. The merged stream flows through the middle of the site in a southward direction until it exits the site.^{2,6}

A gravel parking area is at the northwestern corner of Old Route 309 and Twelfth Street. Directly east of the gravel parking area on lot no. 8 is an old building foundation surrounded by high grass. Directly east of the old building foundation, in the northeastern section of lot no. 8, is an old red brick garage that is used to house a school bus.²



SITE SKETCH

INACTIVE LANDFILL SITE, SELLERSVILLE, PA.

(NO SCALE)

FIGURE

2.2



The landfill, which consists of 15 to 20 rusted decaying drums and other metal materials, is located directly south of Twelfth Street; it is approximately 80 by 60 feet in size. The landfill appears to have no liner or cap to prevent migration of the landfill's contents. The landfill is bordered at the southern end by the unnamed tributary that flows from the northeastern portion of the site. An 18-inch galvanized pipe protrudes from the landfill into this tributary. Bordering the landfill to the west is an area (approximately 25 square feet) that is devoid of vegetation. During the FIT visit, an old, rusted, decaying drum was approximately 150 feet downstream of the landfill, in the middle of the stream.²

Throughout the western portion of the site, there was evidence of motorbike activity and trails.²

2.3 Ownership History

The 11-acre site was purchased by PTI in 1968. According to Richard Coll, of Sellersville Borough, the property was purchased in five different parcels. A tax map provided by Richard Coll clarifies these subdivisions.^{3,4}

PTI purchased lot no. 8, which is at the northern edge of the property bordering Twelfth Street, from Ulysees Nace in 1968. This 2.71-acre land parcel was leased by Mr. Nace in the early 1940s to Lamar Barndt. The parcel was leased by PTI to Timothy Auckland. PTI purchased lot no. 7, a very small parcel located at the northwestern portion of the property, in 1968 from the borough of Sellersville. PTI purchased lot no. 291, a very thin land parcel along Old Route 309 on the western edge of the property, in 1968 from the county of Bucks. PTI purchased lot no. 292, at the western edge bordering lot nos. 8, 10, and 291, from John Morrow in 1968. PTI purchased lot no. 10, a 7.03-acre land parcel at the southern end of the property, from Sam Doughty in 1968.^{3,4,5,6,7}

According to the Bucks County Courthouse Tax Mapping Department, the records of ownership do not date before 1940.⁵

2.4 Site Use History

The subject site is currently owned by PTI. According to Cassin W. Craig, of PTI, PTI intended to develop the land; however, wetland encroachment laws prohibited this development. The site is now undeveloped land.⁸

Lot no. 8 was purchased by PTI in 1968 from Ulycees Nace. Before the sale of this lot, a health physics consulting firm, Radiation Service Organization (RSO), of Laurel, Maryland, was hired to conduct an environmental assessment of the property. Available information does not indicate why RSO was hired to conduct the assessment. Lot no. 8 was leased to Lamar Barndt in the 1940s; the exact date is unknown. Lamar Barndt owned a hauling business and used lot no. 8 to store his trucks. Lamar Barndt was allegedly contracted by Ametek-U.S. Gauge, of Sellersville, to dispose U.S. Gauge's wastes. It is alleged that Ametek-U.S. Gauge, of Sellersville, made aircraft dials with a radium-based paint. The lot was also leased to an automotive technician, Timothy Auckland, by PTI. The exact dates that Mr. Auckland leased the property are not known. The red brick garage on lot no. 8 is currently rented by the Faith Baptist Church of Sellersville to house its school bus.^{2,4,7,8}

Lot no. 7, which was purchased by PTI from the borough of Sellersville, has always been undeveloped land. Lot 291 is also undeveloped land; it was purchased from Bucks County in 1968. Lot no. 292, which is undeveloped land, was purchased in 1968 by PTI from John Morrow; this lot was never developed. Lot no. 10 was purchased in 1968 from Sam Doughty; this land is undeveloped and there are several motorbike trails throughout the lot.^{2,5,8}

2.5 Permit and Regulatory Action History

On March 28, 1990, Sellersville Borough collected water samples from the property owned by PTI because of a shutdown of production well no. 5, located approximately 150 feet south of the site. (Well no. 5 had been sampled on December 19, 1989 and found to contain 22.6 ppb of TCE, which resulted in the shutdown of the production well. The exact date the well was shut down is not known.) The sample was taken for a routine monitoring of the wells by the Sellersville Borough Municipal Water Works. The samples were analyzed by Ambler Laboratories of Ambler, Pennsylvania.^{4,9,10,11}

The first sample collected by Sellersville Borough was from a pipe that runs out of the southern end of the landfill into a small unnamed tributary that flows from the northeastern corner of the site. This tributary merges with another tributary that flows from the west. The samples from the pipe, analyzed by QC, Incorporated of Southampton, Pennsylvania, were found to contain 1,1,1-TCEA and TCE levels that exceeded the Maximum Contaminant Levels (0.20 mg/l for 1,1,1-TCEA and 0.005 mg/l for TCE for drinking water). 1,1,1-TCEA was found at a concentration of 54 ug/l, and TCE was found at a concentration of 30 ug/l. The second sample was taken of the raw water at well no. 5 after the well was purged for approximately two hours. When the samples were taken on March 28, 1990, the results of the well revealed less than 0.5 ug/l of 1,1,1-TCEA and TCE. During the sampling, Richard Coll, of Sellersville Borough, dug approximately one foot into the alleged landfill to try to discover what was buried there. He found old aircraft dials. None of these dials were seen during the FIT site visit.^{2,4,7,12,13}

Fred Walter, of PA DER, was informed of the site. Mr. Walter inspected the old landfill on May 16, 1990. After inspecting the site, Mr. Walter referred the site to EPA. Based on the analytical data submitted by QC, Incorporated, of Southampton, Pennsylvania, Mr. Walter recommended further action.^{4,12,14}

2.6 Remedial Action to Date

In 1968, before PTI's purchase of the property, RSO was hired to perform an assessment of the site. Available information does not indicate what prompted this investigation. Based on the findings of RSO's environmental assessment, a minor radiation contamination problem was detected on site. RSO recommended that the residual radioactivity be removed before the sale of the property to PTI in 1968. RSO removed a plastic bag containing a jar of radium paint, pieces of a broken jar, and several cubic feet of contaminated soil. The material was shipped to an authorized out-of-state radioactive waste disposal firm. Following the removal of the radium paint, pieces of a broken jar, and several cubic feet of contaminated soil, radiation levels on the lot were determined to be in the range of normal background radiation. The Bureau of Radiation Protection was satisfied that the radiation problem had been eliminated and the property could be released for unrestricted use. The exact location on the site from where this material was removed is unknown.^{4,11}

SECRET

SECTION 3

The total population dependent on groundwater for its potable water supply within a 1-mile radius is approximately 5,000 persons. A total population of 33,810 people are served by groundwater sources located within a 3-mile radius of the subject site.^{1,15,17,18,19,20,21,22}

3.2 Surface Waters

Surface water drainage from the landfill area flows to the south directly into a small unnamed perennial stream that flows in a southward direction through the site. A decayed rusted drum was observed in this stream approximately 150 feet south of the landfill. The stream is joined by another small unnamed perennial stream approximately 200 feet south of the landfill. The site consists of 1.74 acres of wetlands along the two perennial streams. The joined stream flows approximately 1,000 feet directly adjacent to a municipal well (no. 5) owned by the Sellersville Borough Municipal Water Works. Well no. 5 has been out of operation for approximately two years. The unnamed stream that flows adjacent to well no. 5 flows 3/4 stream mile southwardly and into the East Branch Perkiomen Creek, which is a trout-stocked fishery.^{1,2,4,6,23}

3.3 Hydrogeology

The geologic and hydrogeologic conditions in the study area were researched as part of the site investigation. A preliminary literature review was conducted to determine surface and subsurface geologic conditions, soil character, and the status of groundwater transport and storage.

3.3.1 Geology

The inactive landfill site is located within the Triassic Lowland Section of the Piedmont Physiographic Province (see figure 3.1, page 3-4). The large part of the study area is drained by the East Branch Perkiomen Creek and its tributaries. The maximum relief is 300 feet in the southern part of the study area and 500 feet in the northern part.^{1,24}



3.2 Surface Waters

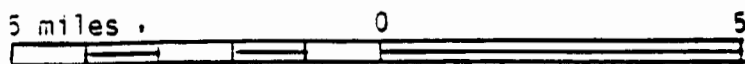
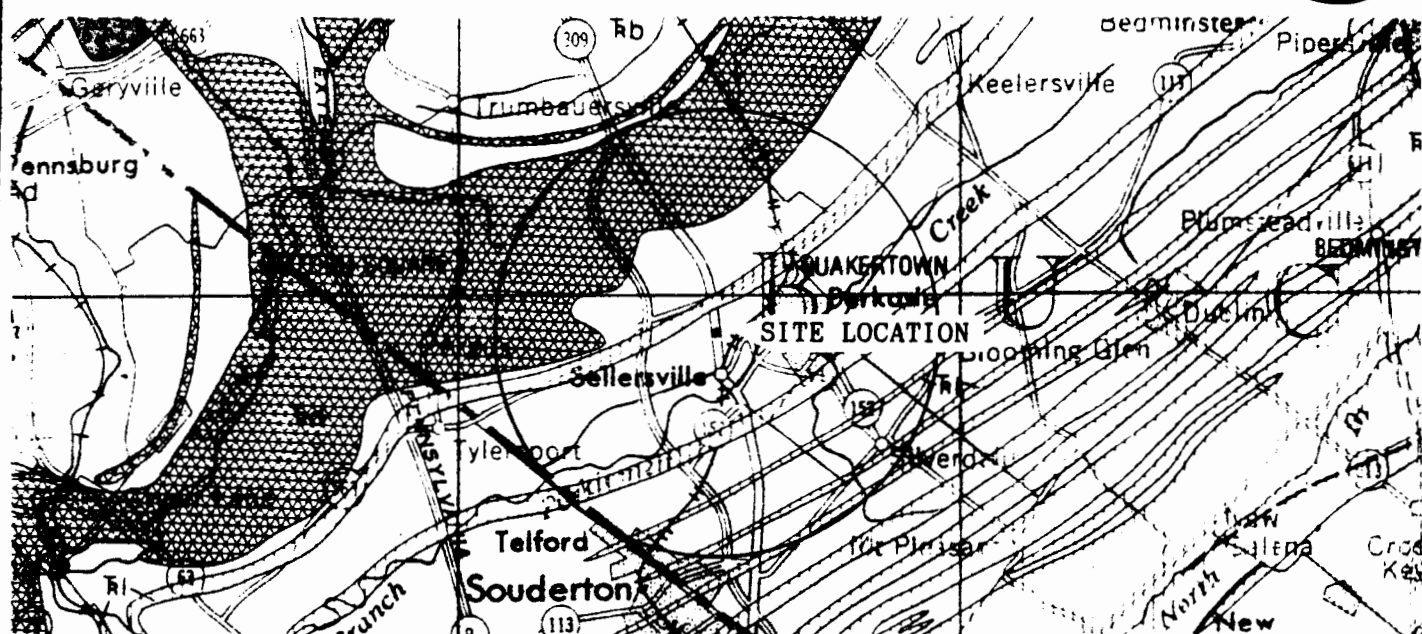
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EXPLANATION

-
- Trd - Diabase;
- Trb - Brunswick Formation;
- Trl - Lockatong Formation.

Source: Commonwealth of Pennsylvania. Department of Environmental Resources.
Bureau of Topographic and Geologic Survey. Geologic Map of Pennsylvania,
1:250,000. 1980.

FIGURE 3-1

GEOLOGIC MAP
INACTIVE LANDFILL SITE
Telford, Bucks Co., PA



The site is underlain by the Triassic age Brunswick Formation, which consists typically of reddish-brown shale, mudstone, and siltstone. A few very thin beds of green and brown shale in some places can be used as marker beds for distances up to one mile. Near the base of the formation, much of the rock is tough, thick-bedded red argillite and is interbedded with dark gray argillite of the Lockatong Formation. This red argillite grades upward and also along strike into red shale, mudstone, and siltstone. The maximum thickness is about 16,000 feet near Pottstown, Pennsylvania. The joints have a blocky pattern. They are moderately developed, moderately abundant, closely spaced, steeply dipping, and mostly open. Some of them are filled with quartz and calcite. The Brunswick outcrop underlies more than 70 percent of the study area.^{24,25}

The sedimentary rocks of the Triassic age Lockatong Formation crop out 0.5 mile northwest of the site. This formation is composed of thick-bedded, medium to dark gray argillite interbedded with beds of gray to black shale, siltstone, and marlstone. The thickness of the Lockatong is about 1,500 feet at the Schuylkill River. The joints have a blocky pattern. They are moderately developed, closely spaced, steeply dipping, and open.^{24,25}

The Triassic age diabase occurs primarily as dikes and sheets intruding the Brunswick Formation. The diabase crops out in the study area about 1.5 miles northwest of the site. The rock is dark gray to black, dense, and very fine grained and consists of 90 to 95 percent labradorite and augite. The maximum thickness is 2,000 feet. The joints have a blocky pattern. They are well developed, moderately abundant, and regularly spaced, having moderate distance between fractures, open, and steeply dipping.^{24,25}

3.3.2 Soils

The inactive landfill site is entirely underlain by Urban land - Abbottstown Complex, zero to eight percent slopes (Uc).²⁶

This complex is about 60 percent Urban land, 35 percent Abbottstown silt loam, and 5 percent included soils. It is in partially developed areas that are mainly underlain by shale bedrock. Most areas have been smoothed, and the original soil material has been disturbed, filled over, or otherwise destroyed before construction. The soil properties are highly variable, and an on-site investigation is needed to determine them.²⁶

3.3.3 Groundwater

The area under investigation is underlain by the Brunswick and Lockatong Formations and diabase, whose water-bearing characteristics depend on their lithologic and structural features. All formations in this area are water bearing. Because the pore spaces in the Brunswick and Lockatong Formations are very small, the groundwater moves mainly through interconnected openings in the rocks, which have occurred as a result of secondary (fractured) porosity.²⁴

The Brunswick Formation contains groundwater under both water-table and semi-artesian conditions in the weathered zone of the formation, which may extend to depths of 600 feet and more. A water-table aquifer of low permeability, comprising the highly weathered zone of the formation, occurs to depths of about 600 feet. In both types of aquifers, the saturated voids are believed to be vertical joint fractures enlarged by solution.²⁴

The Brunswick Formation is an important source of water for domestic, industrial, and public supply. The reported yields range from 2 to 260 gpm, and the average yield is 40 gpm. The well depths range from 14 to 1,000 feet. The groundwater in the Brunswick Formation is moderately mineralized and moderately hard to hard, and it is of satisfactory quality for most uses without treatment.²⁴

Based on topography and on the role of the stream as a discharge point for groundwater, the general direction of the shallow groundwater flow beneath the site is expected to be to the south, toward the tributary of the East Branch of Perkiomen Creek. The elevation of the site above the creek is approximately 20 feet. There is no information available about the depth of the groundwater at the site, but the static water level cannot be lower than the water level in the tributary.¹

3.4 Climate and Meteorology

The subject site is located within the humid continental climate of the United States. The average annual temperature for Ephrata, Pennsylvania, which is located approximately 40 miles north of the site, is 52.3°F. The average monthly temperatures range from 29°F in January to 74°F in July. The average annual precipitation for Ephrata, Pennsylvania is 2.53 inches in February to 4.47 inches in August. The average annual precipitation is 48 inches per year. The mean annual lake evaporation for the area of the site is approximately 34 inches. The net annual precipitation for the site area is approximately 14 inches of rain. A 1-year, 24-hour rainfall will produce approximately 2.5 inches of rain.^{27,28,29}

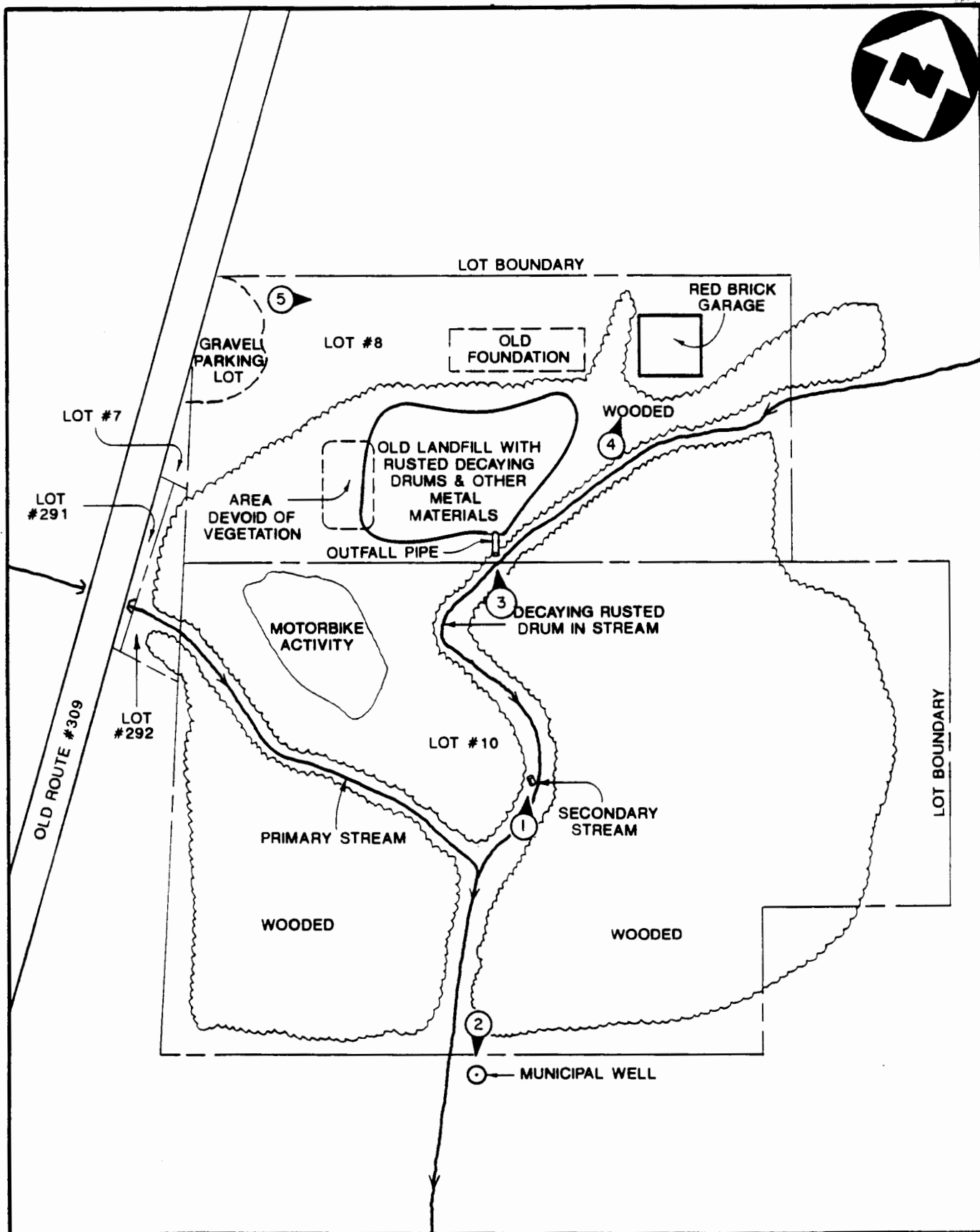


PHOTO LOCATION MAP
INACTIVE LANDFILL SITE, SELLERSVILLE, PA.
 (NO SCALE)

FIGURE 5.2

*

Site Name: Inactive Landfill
TDD No.: F3-9011-19

3.5 Land Use

Suburban residential areas are located north, south, east, and west of the site. The Faith Baptist Church and School are located less than 1/4 mile north of the site. Approximately 500 feet south of the property line is a municipal well (well no. 5). Areas on the western side of the property are used for recreational motorbike activities. The site property is surrounded by residential properties to the southwest, northeast, and southeast.^{1,2}

3.6 Population Distribution

The estimated population within a 0- to 1-mile radius of the subject site is 4,598 persons. Within a 1- to 2-mile radius of the subject site, the population is 6,650 persons; within a 2- to 3- mile radius of the site, the population is 5,183. The total population within a 3-mile radius of the site is approximately 16,431 persons. These figures are based on a house count of homes in the area multiplied by 3.8 persons.¹

3.7 Critical Environments

Two federally listed endangered birds are expected to be found as transient species in the project area. They are the bald eagle (Haliaeetus leucocephalus) and the peregrine falcon (Falcon peregrinus). There are no listed critical habitats for these species in the project area.³⁰

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SECTION 4

4.0 WASTE TYPES AND QUANTITIES

The inactive landfill site was allegedly the site of waste disposal in the 1940s and 1950s. According to Richard Coll, of Sellersville Borough, Lamar Barndt, who was a local hauler, leased lot no. 8 from Ulycees Nace. Mr. Barndt used this property to store his hauling trucks. Mr. Coll said that Mr. Barndt was contracted to dispose wastes from Ametek - U.S. Gauge, of Sellersville. According to Mr. Coll, Mr. Barndt allegedly disposed some of these wastes on lot no. 8. Mr. Coll also said that U.S. Gauge made aircraft dials and gauges with radium-based paint in the 1940s. A preliminary assessment, performed by NUS FIT 3, of Ametek - U.S. Gauge, Incorporated revealed that Ametek - U.S. Gauge, Incorporated manufactured precision parts, reels, and measuring and controlling apparatus. As of 1980, Ametek, Incorporated utilized the following chemicals for these operations: zinc and cadmium cyanide in plating operations, sodium bichromate to organic plate parts, sodium hydroxide in plating, cadmium zinc and cadmium oxide in electroplating, phosphoric and nitric, hydrochloric, sulfuric, and muriatic acids in plating and pickling operations, and TCE as a degreaser. Ametek (U.S. Gauge) is currently active.³¹

Radiation contamination was a problem on the site. It was recommended that the residual radioactivity be removed before the sale of the property to PTI. RSO conducted an environmental assessment of the property and removed a plastic bag containing a jar of radium paint, pieces of a broken jar, and several cubic feet of contaminated soil. This material was shipped to an authorized out-of-state radioactive waste disposal firm. The location of this firm is not available. The exact date of removal of this material is unknown, although it was before 1968.^{4,11}

According to Mr. Coll, the site was also leased to Timothy Auckland, an automobile technician. According to Mr. Coll, local residents alleged that Mr. Auckland disposed oils and antifreeze on the property.⁷

In March 1990, the Sellersville Borough took water samples from the site property owned by PTI. The first sample was taken from a pipe that runs out of the southern end of the alleged landfill located south of Twelfth Street. Allegedly, the samples from the pipe, analyzed by QC, Incorporated, of Southampton, Pennsylvania, were found to have 1,1,1-TCEA and TCE levels that exceed the Maximum Contaminant Levels for drinking water. 1,1,1-TCEA was found at a concentration of 54 ug/l, and TCE was found at a concentration of 30 ug/l. The second sample was then taken just south of the property at municipal well no. 5. These samples revealed concentrations less than 0.5 ug/l for 1,1,1-TCEA and TCE.^{4,13}

SECTION 5

5.0 FIELD TRIP REPORT

5.1 Summary

On Monday, December 10, 1990, NUS FIT 3 members Ronald Dabravalskie, Linda Ciarletta, and Mary Williams performed a preliminary assessment of the Inactive Landfill site in Sellersville, Pennsylvania. Access to the site and permission to take photographs were granted by the land owners, Charles Andrichyn and Cassin W. Craig, of PTI. Weather conditions were cloudy, with temperatures in the mid-40s. Photographs were taken on site (see figure 5.2, page 5-6, and the photograph log, section 5.4).

5.2 Persons Contacted

5.2.1 Prior to Field Trip

Charles Andrichyn
Andrichyn Construction Company
West Fifth and Iron Streets
P.O. Box 846
Lansdale, Pennsylvania 19446
(215) 362-2715

Richard Coll
Borough of Sellersville
140 East Church Street
P.O. Box 308
Sellersville, Pennsylvania 18960
(215) 257-5075

Carol Kurtz
PA DER
1875 New Hope Street
Norristown, Pennsylvania 19401
(215) 270-1948

Dan Fries
Perkasie Borough Water Authority
306 North Fifth Street
P.O. Box 159
Perkasie, Pennsylvania 18944
(215) 257-3654

Tom Wynkoop
Hilltown Water and Sewer Authority
P.O. Box 143
13 West Creamery Road
Hilltown, Pennsylvania 18927
(215) 543-6065

5.2.2 At the Site

Cassin W. Craig
Park Ten, Incorporated
484 Norristown Road
Blue Bell, Pennsylvania 19422
(215) 825-8400

Charles Andrichyn
Park Ten, Incorporated
Andrichyn Construction Company
West 5th and Iron Streets
P.O. Box 846
Lansdale Pennsylvania 19446
(215) 362-2715

5.2.3 Water Supply Well Information

The majority of the residents within 0.5 mile of the site rely on municipal water for their potable water. Seven home well questionnaires were distributed; to date, two questionnaires have been received (see appendix A). For location of the wells, see figure 5.1 (page 5-3). A community well is located one mile south of the site. This well has not been in operation for approximately two years.

5.3 Site Observations

- The OVA had a background reading of 0.2 ppm. The background reading changed to 0.8 ppm. An OVA reading of 95 ppm was recorded inside the outfall pipe protruding from the southern end of the landfill.
- The mini-alert was set on the XI position; no readings above background were recorded.
- An oily sheen was observed on the surface water southeast of the landfill.
- The site consisted of a wooded rectangular lot. The lot was approximately 11 acres in size. Two streams flowed through the property.
- The site was accessed from the northwestern corner of the site along Old Route 309 and Twelfth Street.
- The landfill consisted of approximately 15 to 20 old rusted, broken, punctured, and decaying drums. These drums had no labels or inscriptions. The landfill also consisted of bed springs, rusted buckets, and other metal materials.
- Access to the site was not restricted.
- A rusted crushed drum was found lying in the stream that flows from the northeastern corner of the site. The drum was found approximately 150 feet south of the landfill. There were no labels on this drum, and no OVA readings were recorded.
- The soil west of the landfill was devoid of vegetation.
- There were dirt bike trails throughout the western part of the site.
- The site was bordered to the southwest and east by a few private residences.

- A community well was found approximately 1,000 feet south of the landfill, north of Ninth Street.
- A square area west of the landfill was devoid of vegetation but had a black silty soil.



**POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT**

I. IDENTIFICATION

01 STATE PA	02 SITE NUMBER 2803
----------------	------------------------

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Inactive Landfill		02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER Old Route 309 and Twelfth Street			
03 CITY Sellersville	04 STATE PA	05 ZIP CODE 18960	06 COUNTY Bucks	07 COUNTY CODE 017	08 CONG DIST 08
09 COORDINATES LATITUDE 40° 18' 40" N		LONGITUDE 75° 15' 15" W			
10 DIRECTIONS TO SITE (Starting from nearest public road) The site is located southeast of the corner of Old Route 309 and Twelfth Street in Sellersville, Pennsylvania.					

III. RESPONSIBLE PARTIES

01 OWNER (if known) Park Ten, Incorporated		02 STREET (Business, mailing, residential) 484 Norristown Road			
03 CITY Blue Bell	04 STATE PA	05 ZIP CODE 19422	06 TELEPHONE NUMBER (215) 825-8400		
07 OPERATOR (if known and different from owner) Park Ten, Incorporated		08 STREET (Business, mailing, residential) 484 Norristown Road			
09 CITY Blue Bell	10 STATE PA	11 ZIP CODE 19422	12 TELEPHONE NUMBER (215) 825-8400		
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ <input type="checkbox"/> G. UNKNOWN					
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: _____ <input checked="" type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: 05 16 90 <input type="checkbox"/> C. NONE MONTH DAY YEAR MONTH DAY YEAR					

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES DATE 12 10 90 <input type="checkbox"/> NO MONTH DAY YEAR		BY (Check all that apply) <input type="checkbox"/> A. EPA <input checked="" type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ CONTRACTOR NAME(S): NUS Corporation	
02 SITE STATUS (Check one) <input type="checkbox"/> A. ACTIVE <input checked="" type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION BEGINNING YEAR _____ ENDING YEAR _____ <input checked="" type="checkbox"/> UNKNOWN	
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED 1,1,1-Trichloroethane was found in aqueous samples on site.			

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

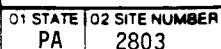
The potential hazards on this site are soil, groundwater, and surface water contamination.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents) <input checked="" type="checkbox"/> A. HIGH <input type="checkbox"/> B. MEDIUM <input type="checkbox"/> C. LOW <input type="checkbox"/> D. NONE (Inspection required promptly) (Inspection required) (Inspect on time available basis) (No further action needed, complete current disposition form)			
--	--	--	--

VI. INFORMATION AVAILABLE FROM

01 CONTACT Lorie Acker	02 OF (Agency/Organization) Environmental Protection Agency		03 TELEPHONE NUMBER (215) 597-3165	
04 PERSON RESPONSIBLE FOR ASSESSMENT Ron Dabravalskie	05 AGENCY NUS	06 ORGANIZATION FIT 3	07 TELEPHONE NUMBER (215) 687-9510	08 DATE 02 01 91 MONTH DAY YEAR





POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER
PA | 2803

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ /1-mile 04 NARRATIVE DESCRIPTION
TCE contamination was the cause of the shutdown of well no. 5. TCE was found in the production well at a concentration of 22.6 ppb. A concentration of 30 ug/l of TCE and 54 ug/l of 1,1,1-TCEA was found at a discharge pipe on site.

01 ☒ B. SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
TCE and 1,1,1-TCEA were found in aqueous samples discharging from on site into a tributary that flows into the East Branch of the Perkiomen Creek. No surface water intakes were observed within 15 miles downstream of the site.

01 ☐ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

None reported or observed.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

None reported or observed.

01 ☐ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

None reported or observed.

01 ☐ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

None reported or observed.

01 ☒ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION
TCE contamination was the cause of the shutdown of well no. 5. TCE was found in the production well at a concentration of 22.6 ppb. A concentration of 30 ug/l of TCE and 54 ug/l of 1,1,1-TCEA was found at a discharge pipe on site. No surface water intakes were discovered within 15 miles downstream of the site.

01 ☐ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None reported or observed.

01 ☐ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None reported or observed.



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
PA 2803

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA 02 ☐ OBSERVED (DATE: 12-10-90) ☒ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

An area west of the landfill is devoid of vegetation.

01 ☐ K. DAMAGE TO FAUNA 02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION (include name(s) of species)

None reported or observed.

01 ☒ L. CONTAMINATION OF FOOD CHAIN 02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

Sample results showed a 30 ug/l concentration of TCE and a 54 ug/l concentration of 1,1,1-TCEA from an on-site discharge pipe that discharges into a tributary that flows into the East Branch of Perkiomen Creek, a trout-stocked fishery.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES 02 ☐ OBSERVED (DATE: 12-10-90) ☒ POTENTIAL ☐ ALLEGED

(Soils/runoff/standing liquids/leaking drums)

03 POPULATION POTENTIALLY AFFECTED: 5,000

04 NARRATIVE DESCRIPTION

No liner or cap is used to restrain off-site migration.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY 02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None reported or observed.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None reported or observed.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING 02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None reported or observed.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

No access restrictions exist on site. Evidence of motorbike activity was found on the western portion of the site.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 5,000

IV. COMMENTS

It is alleged that waste from Ametek-US Gauge, Sellersville, may have been dumped on site.

V. SOURCES OF INFORMATION (Cite specific references, e.g., SRS 1005, SRS 1006, SRS 1007, SRS 1008)

NUS FIT 3. Preliminary assessment; site visit. TDD No. F3-9011-19, December 10, 1990.
Ronald Dabravalskie, NUS FIT 3, with Richard Coll, Sellersville Borough. Telecon. December 12, 1990.

SECTION 6

6.0 REFERENCES FOR SECTIONS 1.0 THROUGH 5.0

1. United States Geological Survey. Telford, Pennsylvania Quadrangle, 7.5 Minute Series. Topographic Map. 1960, photorevised 1969 and 1973. Combined with Perkiomenville, Pennsylvania Quadrangle, 7.5 Minute Series. Topographic Map. 1960, photorevised 1969 and 1973; Doylestown, Pennsylvania Quadrangle, 7.5 Minute Series. Topographic Map. 1953, photorevised 1983; Milford Square, Pennsylvania Quadrangle, 7.5 Minute Series. Topographic Map. 1957, photorevised 1968 and 1973; Quakertown, Pennsylvania Quadrangle, 7.5 Minute Series. Topographic Map. 1957, photorevised 1968 and 1973; and Bedminster, Pennsylvania Quadrangle, 7.5 Minute Series. Topographic Map. 1957, photorevised 1983.
2. NUS Corporation, FIT 3. Preliminary assessment; site visit. TDD No. F3-9011-19, December 10, 1990.
3. Borough of Sellersville. Tax Map of Property. Undated. (Obtained from Richard Coll, Sellersville Borough Manager.)
4. Coll, Richard, Sellersville Borough Manager, with Ronald Dabravalskie, NUS FIT 3. Telecon December 12, 1990.
5. Receptionist, Tax Mapping Department of Bucks County Courthouse, with Ronald Dabravalskie, NUS FIT 3. Telecon. December 27, 1990.
6. Wetlands Map. Undated. (Obtained from Cassin W. Craig, Park Ten, Incorporated.)
7. Coll, Richard, Sellersville Borough Manager, with Ronald Dabravalskie, NUS FIT 3. Telecon. December 13, 1990.
8. Craig, Cassin W., Park Ten, Incorporated, with Ronald Dabravalskie, NUS FIT 3. Meeting. December 10, 1990.
9. Romano, Frank, R., Ambler Laboratories, to Craig Wilhem, Borough of Sellersville Water Department. Correspondence. January 10, 1989.

10. Coll, Richard, Sellersville Borough Manager, with Ronald Dabravalskie, NUS FIT 3. Telecon. January 23, 1991.
11. McDonald, Donald, Division of Radiation Control, Pennsylvania Department of Environmental Resources, to Paul L. Clymer, State Representative. Correspondence. January 21, 1986.
12. Walter, Fred, Pennsylvania Department of Environmental Resources, to File. Memorandum. June 8, 1990.
13. Wilhem, Craig A., Borough of Sellersville, to Everett Hogg, Bucks County Department of Health. Correspondence. April 10, 1990.
14. Walter, Fred, Pennsylvania Department of Environmental Resources, to Environmental Protection Agency. Potential Hazardous Waste Site Identification Form. May 16, 1990.
15. Perkasio Borough Authority. Annual Water Supply Report. 1984.
16. Fries Dan, Perkasio Borough and Water Authority, with Velitchko Etropolski, NUS FIT 3. Telecon. December 5, 1990.
17. Coll, Richard, Sellersville Borough Municipal Water Works, with Velitchko Etropolski, NUS FIT 3. Telecon. December 5, 1990.
18. Wynkoop, Tom, Hilltown Water and Sewer Authority, with Velitchko Etropolski, NUS FIT 3. Telecon. December 10, 1990.
19. Commonwealth of Pennsylvania, Department of Environmental Resources. Bureau of Topographic and Geologic Survey. Geologic Map of Pennsylvania. 1980.
20. Back, Donald F., Telford Borough Water Authority, with Timothy Silar, NUS FIT 3. Project Notes. July 30, 1986.

21. Bucks County Planning Commission. Bucks County Water Supply Inventory. December 1988.
22. Greenman, David W., Topographic and Geologic Survey. Groundwater Resources of Bucks County. Bulletin WII, 1955.
23. Bureau of National Affairs. Drainage List for Delaware Basin. November 16, 1979.
24. Longwill, Stanley M., and Charles R. Wood, Pennsylvania Geological Survey. Groundwater Resources of the Brunswick Formation in Montgomery and Berks Counties, Pennsylvania. Groundwater Report W22, 1965.
25. Geyer, A.R., and J.P. Wilshusen, Pennsylvania Department of Environmental Resources, Bureau of Topographic and Geologic Survey. Engineering Characteristics of the Rocks of Pennsylvania. Environmental Geology Report 1, 1982.
26. United States Department of Agriculture Soil Conservation Service. Soil Survey of Bucks and Philadelphia Counties, Pennsylvania. 1975.
27. National Oceanic and Atmospheric Administration. Climatology of the United States. No. 20, Climate of Pennsylvania; Summary of Phoenixville, Pennsylvania 1985.
28. United States Department of Commerce, National Climatic Center. Climactic Atlas of the United States. 1979.
29. United States Department of Commerce, United States Printing Office. Rainfall Frequency Atlas of the United States. Technical Paper No. 40. 1963.
30. Kulp, Charles, United States Department of the Interior, Fish and Wildlife Service, to Garth Glenn, NUS FIT 3. Correspondence. February 7, 1990.
31. NUS Corporation, FIT 3. Preliminary assessment report. TDD No. F3-8612-12, March 1, 1984.

APPENDIX A

HOME WELL SURVEY

Home Owner's Name: Faith Baptist ChurchDate: 1-7-91Address: N. Main St.
Sellersville, PA 18960

Home Phone: _____

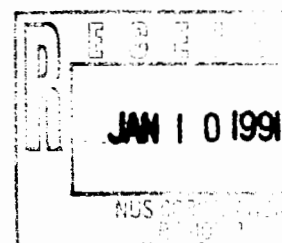
Work Phone: 215-257-5031

1. Please describe the type of home well you presently utilize:
(Check those which apply)

_____ Dug well

X Drilled by a rig; if so, please identify company (name, address, and phone):Unknown

_____ Other (describe) _____



- 1a. Please estimate the following: Year installed 1963

Date of last service 1-5-88

Company who serviced (name, address, and phone): R.H. Odenheimer Co.
1863 S. Albert St.
Allentown, PA 18103
215-791-4353

2. Please provide the following measurements of your well:

a. Total depth: Unknown

b. Well diameter: _____

3. Please describe the casing material used in your well:

a. Composition

_____ Iron _____ PVC _____ Galvanized _____ Terra Cotta
_____ Other - Please
Specify (if known)

b. Length (if known): _____

HOME WELL SURVEY

Home Owner's Name: Faith Baptist ChurchDate: 1-7-91

4. Please describe, if known, any screening material used in your well:

a. Length of screen: _____

b. Depth of screen in well: _____

5. Please indicate, if known, the depth to the groundwater in your well (from the surface):

6. Please indicate the composition of home plumbing (pipes) in your system:

_____ Iron X PVC _____ Galvanized _____ Lead
X Other (describe): Copper

7. Please describe the water pump used in your system:

a. Location of the pump

X Inside the well (submersible pump); Depth in well: _____

_____ Outside the well (indicate location): _____

b. Type of pump

Branch (if known): Goulds Submersible

Capacity (gallons per minute): _____

c. Estimate hours of pump operation per day: 10 hoursd. Is storage tank used: X Yes _____ NoType (material) Plastic lined Capacity 42 gal.

Galvanized

8. a. Do you regularly or have you ever added chemicals directly to your well?

(i.e., chlorine, clorox, etc.) _____ Yes X No

If yes, date last added: _____ Approximate amount added _____

Compound (brand name): _____

HOME WELL SURVEY

Home Owner's Name: Faith Baptist ChurchDate: 1-7-91

- b. Please describe any type of water treatment you are currently using (check those which apply):

 Filtration Other (explain)Type: Water SoftenersIndicate Brand:

9. Please indicate any testing that has been done on your water:

Every three months Bacteriological testing on well water. - Q.C. Inc.

6-25-90 - Tested for lead in all drinking fountains.

1205 Industrial Hy.Date of testing: Southampton, PA 18966Name of individual(s) responsible for testing: John M. Young

10. Well Use: X Drinking X Other: Restrooms, cleaning

11. Do you notice color, taste, or odor problems with well water? Yes X No

If yes, identify: Do you notice water supply problems? Yes X NoIf yes, when: how often:

12. Please indicate the type(s) of wastewater system used (check):

Sewer Line X Septic Tank Cesspool Drain Field Distance to Well

13. We may be taking water samples from many area homes in the near future. If your well is chosen for sampling, would you be willing to allow our NUS representatives to sample your well? Sampling involves collecting water from one of your indoor or outdoor spigots.

 X Yes, I will allow my well to be sampled. No, I will not allow my well to be sampled.

HOME WELL SURVEY

Home Owner's Name: Faith Baptist Church Date: 1-7-91

If yes, please indicate the time of day which would be convenient for us to sample.

X Morning 9-11AM Afternoon Evening

14. In the space below, please furnish a rough sketch of your property, indicating the location of your well and on-lot wastewater system, if applicable. Also indicate the location of the spigot you would prefer us to sample.